

Supplemental Table 2: Strains, Plasmids, and Primers Used in this Study

Strain, Plasmid, or Primer	Genotype/Relevant Characteristic	Source*
<i>S.cerevisiae</i> INVSc1	MAT α his3D1 leu2 trp1-289 ura3-52 MAT his3D1 leu2 trp1-289 ura3-52	Shanks et al. 2006
<i>E.coli</i> S17-1(lpir)	thi pro hsdR- hsdM+ DrecA RP4-2::TcMu-Km::Tn7	Shanks et al. 2006
SMC232	Wild type PA14	Zegans et al. 2009
SMC3884	Wild type DMS3 Lysogen	Zegans et al. 2009
SMC4893	Δ DMS3-42 Lysogen	Cady et al. 2011
SMC4894	Δ DMS3-42 + DMS3-42 Lysogen	Cady et al. 2011
SMC5059	Δ DMS3-42 lysogen+ DMS3-42 A232T mutant	This Study
SMC5060	Δ DMS3-42 lysogen+ DMS3-42 C233G mutant	This Study
SMC4892	Δ DMS3-42 lysogen+ DMS3-42 C234T mutant	Cady et al. 2011
SMC4897	Δ DMS3-42 lysogen+ DMS3-42 G235T mutant	Cady et al. 2011
SMC5061	Δ DMS3-42 lysogen+ DMS3-42 C236G mutant	This Study
SMC4899	Δ DMS3-42 lysogen+ DMS3-42 C238G mutant	Cady et al. 2011
SMC5062	Δ DMS3-42 lysogen+ DMS3-42 T239G mutant	This Study
SMC5063	Δ DMS3-42 lysogen+ DMS3-42 G241A mutant	This Study
SMC5064	Δ DMS3-42 lysogen+ DMS3-42 A242C mutant	This Study
SMC4900	Δ DMS3-42 lysogen+ DMS3-42 C243T mutant	Cady et al. 2011
SMC5065	Δ DMS3-42 lysogen+ DMS3-42 T244C mutant	This Study
SMC5066	Δ DMS3-42 lysogen+ DMS3-42 A245C mutant	This Study
SMC4901	Δ DMS3-42 lysogen+ DMS3-42 C246T mutant	Cady et al. 2011
SMC5067	Δ DMS3-42 lysogen+ DMS3-42 T247C mutant	This Study
SMC5068	Δ DMS3-42 lysogen+ DMS3-42 A248T mutant	This Study
SMC4902	Δ DMS3-42 lysogen+ DMS3-42 C249T mutant	Cady et al. 2011
SMC5344	Δ DMS3-42 lysogen+ DMS3-42 A250G mutant	This Study
SMC5069	Δ DMS3-42 lysogen+ DMS3-42 A251G mutant	This Study
SMC4903	Δ DMS3-42 lysogen+ DMS3-42 C252T mutant	Cady et al. 2011
SMC4904	Δ DMS3-42 lysogen+ DMS3-42 T254C mutant	Cady et al. 2011
SMC5345	Δ DMS3-42 lysogen+ DMS3-42 C256A mutant	This Study
SMC5070	Δ DMS3-42 lysogen+ DMS3-42 G257A mutant	This Study
SMC5346	Δ DMS3-42 lysogen+ DMS3-42 C259G mutant	This Study
SMC5347	Δ DMS3-42 lysogen+ DMS3-42 T260C mutant	This Study
SMC4906	Δ DMS3-42 lysogen+ DMS3-42 G261T mutant	Cady et al. 2011
SMC4907	Δ DMS3-42 lysogen+ DMS3-42 A262T mutant	Cady et al. 2011
SMC5348	Δ DMS3-42 lysogen+ DMS3-42 T263C mutant	This Study
SMC5084	Δ DMS3-42 lysogen+ DMS3-42 G264A mutant	This Study
SMC5368	Δ DMS3-42 lysogen+ DMS3-42 G265A mutant	This Study
SMC4279	Δ PA14_CRSR1-2 (CR)	Cady et al. 2011
SMC4280	Δ PA14 CR DMS3 lysogen	Cady et al. 2011
SMC7005	PA14 lysogen Δ DMS3-42ps-52	This Study
SMC7006	PS-CKOn	This Study
SMC7007	Scrambled PS-CKOn	This Study
SMC7008	Δ CR PS-CKOn	This Study
SMC7009	Δ CR Scrambled PS-CKOn	This Study
SMC7010	PS-CKOn-A245C	This Study
SMC7011	Δ CR PS-CKOn-A245C	This Study
SMC7012	PS-CKOn-C246T	This Study
SMC7013	Δ CR PS-CKOn-C246T	This Study
SMC7014	APA14_07970-PA14_08330 (Δ R/F)	This Study
SMC7015	PS-CKOn Δ R/F	This Study
SMC7016	Δ PA14_52480-PA14_52520 (Δ PA14_52530 operon)	This Study
SMC7017	PS-CKOn APA14_52530 operon	This Study
SMC7018	Δ R/F Δ PA14_52530 operon	This Study
SMC7019	PS-CKOn Δ R/F APA14_52530 operon	This Study
SMC7020	Δ recA	This Study
SMC7021	PS-CKOn Δ recA	This Study
SMC7022	Δ R/F Δ PA14_13940 (Apyocin S2)	This Study
SMC7023	Δ R/F Δ PA14_49520 (Apyocin S3)	This Study
SMC7024	Δ R/F Δ PA14_59220 (Apyocin S5)	This Study
SMC4541	Δ cas3 + cas3-D124A (chromosomal)	Cady et al. 2011
SMC7025	PS-CKOn Δ cas3 + cas3-D124A (chromosomal)	This Study
SMC4465	Δ sadC	Merritt et al. 2010
SMC5363	Δ csy3 lysogen of DMS3 with DMS3-42 T255C allele	Cady and Bondy-Denomy et al. 2012
Plasmids		
pMQ30	<i>P. aeruginosa</i> suicide vector for clean deletions; Gm'	Shanks et al. 2006
pMQ30-DMS3-42ps-52 KO	DMS3 lysogen DMS3-42ps-DMS3-52 deletion plasmid; Gm'	This Study
pMQ30-recA-KO	PA14_recA in-frame deletion plasmid; Gm'	This Study
pMQ30-PA14_52480-PA14_52520-KO	PA14_52530 operon in-frame deletion plasmid; Gm'	This Study
pMQ30-PA14_07970-PA14_08330-KO	PA14 R/F apycocin in-frame deletion plasmid; Gm'	This Study
pMQ30-PA14_13940-KO	PA14 S2 apycocin in-frame deletion plasmid; Gm'	This Study

pMQ30-PA14_49520-KO	PA14 S3 pyocin in-frame deletion plasmid;Gm ^r	This Study
pMQ30-PA14_59220-KO	PA14 S5 pyocin in-frame deletion plasmid;Gm ^r	This Study
pMQ30-PS-CKOn	DMS3-42 protospacer + 5nt upstream and downstream att::Tn7 site knock-on vector	This Study
pMQ30-Scrambled-PS-CKOn	Scrambled DMS3-42 protospacer + 5nt upstream and downstream att::Tn7 site knock-on vector	This Study
pMQ30-PS-CKOn-A245C	DMS3-42 A245C protospacer + 5nt upstream and downstream att::Tn7 site knock-on vector	This Study
pMQ30-PS-CKOn-C246T	DMS3-42 C246T protospacer + 5nt upstream and downstream att::Tn7 site knock-on vector	This Study
pMQ30-DMS3-42 A232T mutation KON	DMS3-42 allelic replacement construct with point mutation A232T ; Gm ^r	This Study
pMQ30-DMS3-42 C233G mutation KON	DMS3-42 allelic replacement construct with point mutation C233G ; Gm ^r	This Study
pMQ30-DMS3-42 C236G mutation KON	DMS3-42 allelic replacement construct with point mutation C236G ; Gm ^r	This Study
pMQ30-DMS3-42 T239G mutation KON	DMS3-42 allelic replacement construct with point mutation T239G ; Gm ^r	This Study
pMQ30-DMS3-42 G241A mutation KON	DMS3-42 allelic replacement construct with point mutation G241A ; Gm ^r	This Study
pMQ30-DMS3-42 A242C mutation KON	DMS3-42 allelic replacement construct with point mutation A242C ; Gm ^r	This Study
pMQ30-DMS3-42 T244C mutation KON	DMS3-42 allelic replacement construct with point mutation T244C ; Gm ^r	This Study
pMQ30-DMS3-42 A245C mutation KON	DMS3-42 allelic replacement construct with point mutation A245C ; Gm ^r	This Study
pMQ30-DMS3-42 T247C mutation KON	DMS3-42 allelic replacement construct with point mutation T247C ; Gm ^r	This Study
pMQ30-DMS3-42 A248T mutation KON	DMS3-42 allelic replacement construct with point mutation A248T ; Gm ^r	This Study
pMQ30-DMS3-42 A250G mutation KON	DMS3-42 allelic replacement construct with point mutation A250G ; Gm ^r	This Study
pMQ30-DMS3-42 A251G mutation KON	DMS3-42 allelic replacement construct with point mutation A251G ; Gm ^r	This Study
pMQ30-DMS3-42 C256A mutation KON	DMS3-42 allelic replacement construct with point mutation C256A ; Gm ^r	This Study
pMQ30-DMS3-42 G257A mutation KON	DMS3-42 allelic replacement construct with point mutation G257A; Gm ^r	This Study
pMQ30-DMS3-42 C259G mutation KON	DMS3-42 allelic replacement construct with point mutation C259G ; Gm ^r	This Study
pMQ30-DMS3-42 T260C mutation KON	DMS3-42 allelic replacement construct with point mutation T260C ; Gm ^r	This Study
pMQ30-DMS3-42 T263C mutation KON	DMS3-42 allelic replacement construct with point mutation T263C ; Gm ^r	This Study
pMQ30-DMS3-42 G264A mutation KON	DMS3-42 allelic replacement construct with point mutation G264A ; Gm ^r	This Study
pMQ30-DMS3-42 G265A mutation KON	DMS3-42 allelic replacement construct with point mutation G265A ; Gm ^r	This Study
Primers		
DMS3Δ42ps-52 KO primer 1	CAAATTCTGTTTATCAGACCGCTTCTGCCTGTATGATGCGTCCCCGGCCCCAGTGCG	
DMS3Δ42ps-52 KO primer 2	TCTACCGCGATCAGGAAGGACTGAAAGCCGTAGGGCGAATAACGCCAACCGG	
DMS3Δ42ps-52 KO primer 3	CCGGTGGCGTTATTGCCCTACGGCGCCGCCCATCAGGCCAAGGTTGAGTAA	
DMS3Δ42ps-52 KO primer 4	CGGATAACATTACACAGGAACACAGCTATGGGCCGCGCAGAACCTCGCGC	
DMS3-42 PS-CKOn KOn primer 1	CTGTTTTATCAGACCGCTTCTGCCTGTATGCTGCTCGCCCTGATCC	
DMS3-42 PS-CKOn KOn primer 2	CCATCAGCGAAGGTTGAAGTAGTCAGGGCGGTATCGCGGGCACTCATGCGGCCGG	
DMS3-42 PS-CKOn KOn primer 3	TACCGCCCTGGACTACTACAACCTTCCGCTGATGGGGGGCTTCGGGTACCGGGCCG	
DMS3-42 PS-CKOn KOn primer 4	CGGATAACATTACACAGGAACACAGCTATGGCGAGCTGTTCCCAAGGTTG	
DMS3-42 Scrambled PS-CKOn KOn primer 1	GACCGCTAGTGTGGCACCGCGTACGAGCTCGGTATAGACGGCGACTCATGCGGCCGG	
DMS3-42 Scrambled PS-CKOn KOn primer 2	TATACCGAGCTCGTACCGGGTGCCACACTAGCGGTACCGGCTTCGGGTACCGGGCCG	
DMS3-42 A245C PS-CKOn primer Point Mutant F	GCGATACGCCCTGGACTCTAACACCTTCGCCGATGG	
DMS3-42 A245C PS-CKOn primer Point Mutant R	GGCGAAGGTTGAGGAGTCCAGGGCGGTATCG	
DMS3-42 C246T PS-CKOn primer Point Mutant F	ATACCGCCCTGGACTATTACAACCTTCGCCGATGG	
DMS3-42 C246T PS-CKOn primer Point Mutant R	CCATCAGCGAAGGTTGAATAGTCAGGGCGGTAT	
recA KO primer 1	TTATCAGACCGCTTCTGCCTCTGACTTGTCTTGAATCTGCGAGGTAGAGGTTG	
recA KO primer 2	CGGTCGCCATTGGCCTGAAGTCTCGCGAAGTCAGGGCGC	
recA KO primer 3	TTCGCGAGGACTTCAGGCCATGGCGACCGTGTCTGATACG	
recA KO primer 4	CAATTCACACAGGAACACAGCTATGGCCGGCGCTTCGGCACCC	
PA14_52530 operon KO primer 1	TTTTATCAGACCGCTTCTGCCTCTGACTTGTCTTGAATCTGCGATGGGTAGGGCTCCACCACCTTG	
PA14_52530 operon KO primer 2	CGGGGGGGAAAGGGGAGGCATGCCGCTCTGCTTTCATCGG	
PA14_52530 operon KO primer 3	GGACCGGCATGCCCTCCCTCCGCCGCCGCTGACGAC	
PA14_52530 operon KO primer 4	CAATTCACACAGGAACACAGCTATGGCTGGCAGGCGAAAGGGCGCG	
PA14 Pyocin R/F KO primer 1	CTGTTTTATCAGACCGCTTCTGCCTGTATGGGTGGCGGTACGCC	
PA14 Pyocin R/F KO primer 2	CGTCCATCAGCTAGGGGAAAGCCTCCCTGGCGTGCACGAC	
PA14 Pyocin R/F KO primer 3	CCAGGGAGGCTTCCCCTAGCTGATGGACGCAAGGCTGCC	
PA14 Pyocin R/F KO primer 4	CGGATAACATTACACAGGAACACAGCTATGGCCGAGGAGTTG	
PA14_13940 KO primer 1	CTGTTTTATCAGACCGCTTCTGCCTGTATCGCTCGCAACCCGGCTTGGCC	
PA14_13940 KO primer 2	CGTACCGGAGAACCTGACGGGCTTACTCTCCAGTTCTGAGACG	
PA14_13940 KO primer 3	AGTAAAGCCGGTCAGGCTTCGGGTACGCCGGCG	
PA14_13940 KO primer 4	CGGATAACATTACACAGGAACACAGCTATGGCGAGCTTCCGCAAC	
PA14_49520 KO primer 1	CTGTTTTATCAGACCGCTTCTGCCTGTAGGGTCAAGGTTGCTGC	
PA14_49520 KO primer 2	CGTTGATTAGAAGTGGAGAAGAACGTCATGCTTAATTGATAGCATCG	
PA14_49520 KO primer 3	TCAGCTTCTCCACTTCTAAAATCAACGCCATGCACCTGGCACAC	
PA14_49520 KO primer 4	CGGATAACATTACACAGGAACACAGCTATGCCGCAACGCCAGCTGGGTGTTGCC	
PA14_59220 KO primer 1	CTGTTTTATCAGACCGCTTCTGCCTGTAGGCAGGACTGCCGAGTGTTCATC	
PA14_59220 KO primer 2	AGTTAGGATTGATCATTAGACTTCTCCATTGGTGAAGTGGTACAGAACAGTG	
PA14_59220 KO primer 3	AATGGAGAAGTCTAATGATCACTCTCGAAGATGGCAATGGCC	
PA14_59220 KO primer 4	GATAACATTACACAGGAACACAGCTATGTCGTCACGCCCTGAAAGGCTTCGCTAC	
DDMS3-42 1 (68)	TAATCTGTATCAGGCTGAAATCTCTCATCCGCAAACATCGAGAAGCTCCAGCAGATT	
DDMS3-42 4 (68)	CGGGCGATC	
A232T F(68)	GTGAGCGGATAACAAATTACACAGGAACACAGCTCGATATTGGCGTGTGCCGGAACGA	
A232T R(68)	TCCCG	

C233G F(68)	GAGCTACGGCGATAGCGCCCTGGACTACTAC
C233G R(68)	GTAGTAGTCCAGGGCGCTATGCCGTAGCTC
C236G F(68)	GCTACGGCGATACCGGCCCTGGACTACTACAACC
C236G R(68)	GGTTGTAGTAGTCCAGGCCGTATGCCGTAGC
C237G F(68)	AGCTACGGCGATACCGCGCTGGACTACTA
C237G R(68)	TAGTAGTCCAGCGCGGTATGCCGTAGCT
T239G F(68)	GGCGATAACGCCCGGGACTACTACAACCTTCG
T239G R(68)	CGAACGTTGAGTAGTCCCGGGCGGTATGCC
G240C F(68)	CTACGGCGATACCGCCCTCGACTACTACAACCTTC
G240C R(68)	GAAGGTTGAGTAGTCCAGGGCGGTATGCCGTAG
G241A F(68)	CGGCATACGCCCTGAACACTACAACCTTCG
G241A R(68)	CGAACGTTGAGTAGTCCAGGGCGGTATGCC
A242C F(68)	GCGATAACGCCCTGGCTACTACAACCTTCG
A242C R(68)	CGAACGTTGAGTAGTCCAGGGCGGTATCGC
T244C F(68)	ATACCGCCCTGGACCACACTACAACCTTCGCTGATG
T244C R(68)	CATCAGGCGAAGGTTGAGTAGTCCAGGGCGGTAT
A245T F(68)	ATACCGCCCTGGACTCTACAACCTTCGCTGATGG
A245T R(68)	CCATCAGGCGAAGGTTGAGTAGTCCAGGGCGGTAT
T247C F(68)	CCGCCTGGACTACCAACACCTTCGCTGATG
T247C R(68)	CATCAGGCGAAGGTTGAGTAGTCCAGGGCGG
A248T F(68)	CCGCCTGGACTACTTCAACCTTCGCTGATGG
A248T R(68)	CCATCAGGCGAAGGTTGAGTAGTCCAGGGCGG
A250G F(68)	GCCCTGGACTACTACGACCTTCGCTGATGGG
A250G R(68)	CCCATCAGGCGAAGGTCGTTAGTAGTCCAGGGC
A251G F(68)	CCCTGGACTACTACAGCCTTCGCTGATGGG
A251G R(68)	CCCATCAGGCGAAGGCTGAGTAGTCCAGGG
C253G F(68)	GACTACTACAACGTTGCCGTATGGGCGGCAC
C253G R(68)	GTGCCGCCCATCAGGCGAACGTTAGTAGTC
T255C F(68)	CTACTACAACCTCCGCCCTGATGGGCGGCAC
T255C R(68)	GTGCCGCCCATCAGGCGGAGGTTAGTAG
C256A F(68)	GACTACTACAACCTAGCCTGATGGGCGGCACG
C256A R(68)	CGTCCGCCCATCAGGCTAACGGTTAGTAGTC
G257A F(68)	GGACTACTACAACCTCACCTGATGGGCGGCACG
G257A R(68)	CGTCCGCCCATCAGGTTGAGGTTAGTAGTC
C258G F(68)	CTACAACCTTCGGCTGATGGGCGGCACGG
C258G R(68)	CCGTGCCGCCATCAGGCGAACGGTTAG
C259G F(68)	CTACAACCTTCGCGTGTATGGGCGGCACGG
C259G R(68)	CCGTGCCGCCATCACCGGAAGGTTAG
T260C F(68)	CAACCTTCGCCGTATGGGCGGCACGG
T260C R(68)	CCGTGCCGCCATCGGGCGAACGGTTAG
T263C F(68)	TCGCCTGACGGGGGGCACGGCGTT
T263C R(68)	AAAGCCGTGCCGCCCTCAGGCAGA
G264A F(68)	CTTCGCCTGATAGGCGGCACGGCGTT
G264A R(68)	GAACGCCGTGCCCTATCAGGCAGAAG
G265A F(68)	CTTCGCCTGAGGCCGTCATCAGGCAGAAG
G265A R(68)	GAACGCCGTGCCGTCATCAGGCAGAAG
<i>rplU</i> RT For	GCAGCACAAAGTCACCGAAGG
<i>rplU</i> RT Rev	CCGTGGGAAACCACTTCAGC
<i>proC</i> RT For	GCTGCTGTCTCGCGTAGG
<i>proC</i> RT Rev	CATCAGCAGGAAGAAATACGCC
<i>fabD</i> RT For	GCATCCCTCGCATTCTGCT
<i>fabD</i> RT Rev	GGCGCTCTTCAGGTCCATT
PA14_07990 RT For	GTAAAGCACCGAACCCG
PA14_07990 RT Rev	GGCATTCGCGTCAGTGCTG
PA14_08300 RT For	GGAAAGTTAGGCAAGAGTGGAAA
PA14_08300 RT Rev	CCAGTTGTTGATCCGTCAGTA
PA14_52480 RT For	TCGCTGCCCTGACTTCAGT
PA14_52480 RT Rev	GTCAGGCTCAATCCTTTCTG
PA14_52490 RT For	CTGCTGCAGTCAGGCAATG
PA14_52490 RT Rev	GAGCGAGAACAAAGTCGAAAC

*See main text for literature cited.

CTGTT TATCAGACCGCTTCTGCCTCTGATCGCTCGCAACCCGCCCTGGCC
CGT ACC CGA GAA GCC TGA CCG GGC TTT ACT CTC CAG TTC TTG AGA CG
AGT AAA GCC CGG TCA GGC TTC TCG GGT ACG CGG CCG G
CGG ATA ACA ATT TCA CAC AGG AAA CAG CTA TGG CGG AGC TGT TCG CCA AGG TTC GCA AC
CTG TTT TAT CAG ACC GCT TCT GCG TTC TGA TTG GGT CAG CGG CTC GGT GCT GC
CGT TGA TTT TAG AAG TGG AGA AGA AGC TGA TCG TTA AAT TAA TTG ATA GCA TCG
TCA GCT TCT TCT CCA CTT CTA AAA TCA ACG CCA ATG CAC CTG GCA CAC

CGG ATA ACA ATT TCA CAC AGG AAA CAG CTA TGC CGC GAT ACA GCA CCT GGG TGT TTG CC
CTG TTT TAT CAG ACC GCT TCT CGC TTC TGA GCA GGA TCC CGA CTG CCG AGT GTT CAT C
AGT TAG GAT TGA TCA TTA GAC TTC TCC ATT GGT GAG TGT GGT ACA GAA ACA GTG
AAT GGA GAA GTC TAA TGA TCA ATC CTA ACT CTG TCG AAA TAG TTG ACA ATG GCC
GAT AAC AAT TTC ACA CAG GAA ACA GCT ATG TTC GTC AAC GCC CTT GAA AGG CTT CGC TAC